REMARKS

This is in response to the Office Action dated August 9, 2006. New claims 12-14 have been added. Claims 1-14 are pending.

Claim 1 stands rejected under Section 103(a) as being allegedly unpatentable over alleged Admitted Prior Art Figs. 2A-4F (APA) in view of Bu. This Section 103(a) rejection is respectfully traversed for at least the following reasons.

The invention disclosed in Bu (U.S. Patent 7,006,071) provides a way for solving a problem caused from different offsets of operational amplifiers which function as output buffers in a driving device for a liquid crystal device (LCD) panel (see Bu at col. 1, line 65 to col. 2, line 17). The problem is a follows. The offsets of the operational amplifiers are not equal to each other; thus, even when the analog data with the same voltage corresponding to the same gray level is input to the operational amplifiers, the output voltages of these operational amplifiers are different.

In Bu, to solve the above problem, data lines through which pixels are driven toward the same gray level are short-circuited via a switch provided between the data lines after a driving voltage is applied to each of the data lines by the corresponding operational amplifier. As a result, the voltage deviation between the data lines is eliminated by averaging the offsets generated by the corresponding operational amplifiers through the switch (see col. 5, lines 49-58 and Fig. 3). When a dot inversion method is employed, for example, adjacent pixels in the same row are driven by voltages with

opposite polarities. In such cases data lines through which pixels with the same polarity are driven toward the same gray level are short-circuited via a switch for averaging the above mentioned offsets (see col. 6, lines 7-28 and Fig. 4). In the case of Fig. 4 in Bu, the adjacent data lines such as DL1 and DL2 are not connected via the switch S2, but data lines DL1 and DL3 are connected via the switch S2.

In contrast, an example non-limiting object of certain example embodiments of this invention is to provide a display device with which power consumption can be reduced while employing a video signal line time-division driving method (e.g., page 5, lines 20-22 of the instant specification). The video signal lines are grouped not for averaging the offsets of operational amplifiers but for reducing the power consumption while employing a video signal line time-division driving method.

Each of the APA and Bu fail to disclose or suggest reduction of the power consumption by grouping data lines in connection with a time-division driving method. The use of the grouping in the context of the time division driving technique as required by claim 1 is advantageous in that it permits, for example, power consumption to be reduced. The cited art fails to disclose or suggest this, either taken alone or in the alleged combination.

Thus, the example non-limiting power consumption objective of claim 1 is different from that of Bu, and based on such a difference in objectives there is a difference in a pattern of connection switching regarding the video signal lines (data lines) in one group between claim 1 and the configuration shown in Fig. 4 of Bu.

Specifically, in Bu, which is based on the premise that some pixels in the same row are driven toward the same gray level, one data line group consists of data lines to be connected to each other for averaging the offsets generated by the corresponding operational amplifiers. On the other hand, claim 1 recites "a connection switching circuit for connecting each of the output terminals of the video signal line driving circuit to one of the video signal lines in the corresponding video signal line group..." Thus, in certain example embodiments of the present invention, the video signal lines in one group need not be connected to each other (see page 14, lines 7-9 and Figs. 14D-14F). For example two switches SW1 and SW3 shown in Fig. 5 are not in the ON-state at the same time.

Consequently, claim 1 cannot be derived from simply incorporating the switching circuit as taught by Bu (see Fig. 4) in the system of AAPA (see Figs. 2A-2F of the present application). Each of the cited art fails to disclose or suggest grouping data lines in connection with a time-division driving method.

Claims 6 and 8 also require connecting each of the output terminals to one of the video signal lines in the corresponding video signal line group, and switching the video signal line to which each of the output terminals is connected within the corresponding video signal line group in accordance with time division. Again, the cited art fails to disclose of suggest this subject matter.

Claims 12-14 require that at least two switches are provided between each video signal line in a given one of the groups. For example and without limitation, Fig. 5 of the instant application illustrates that two switches SW1 and SW3 are provided between

video signal lines SL1 and SL3 of the group corresponding to terminal TS1. The cited art fails to disclose or suggest the subject matter of claims 12-14, either taken alone or in the alleged combination. Even if one were to have implemented the Fig. 4 system of Bu in the APA as alleged in the Office Action (which would be incorrect in any event), there would still only be one switch between the video signal lines of an alleged group; for example in Fig. 4 of Bu there is only one switch S2 between lines DL1 and DL3 of an alleged group (note that switch S1 is not between these lines). Thus, even the alleged combination fails to meet the inventions of claims 12-14. Thus, claims 12-14 clearly define over the cited art in this respect.

It is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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By: _____

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